

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (withdrawn) A process for producing anti-freeze peptides which comprises collecting one or more samples of bacteria from an aqueous low-temperature environment, culturing the bacteria and extracting proteins from the samples, testing the proteins for anti-freeze properties, selecting protein having anti-freeze properties, and producing the selected protein in amounts sufficient for use as an AFP food additive.
2. (withdrawn) Pure bacterial cultures of *Marinomonas* species that generate anti-freeze proteins, said bacterial cultures showing at least 90% and preferably 95% homology in the 16S rRNA gene sequence with the corresponding sequence in the organism *Marinomonas protea* (SEQ ID no 1).
3. (withdrawn) Pure bacterial cultures of *Pseudomonas* species that generate anti-freeze proteins, said bacterial cultures showing at least 90% and preferably at least 95% sequence homology in the 16S rRNA sequence with the gene sequence according to seq ID no 2.
- 4-5 (cancelled)
6. (currently amended) ~~Protein-Isolated protein showing~~ having anti-freeze activity and having a ~~sequence homology in the~~ an N terminal amino acid sequence ~~of at least~~

~~75% to the amino acid sequence of as shown in sequence SEQ ID no- NO: 3, said protein being isolated.~~

7. (Canceled)

8. (withdrawn) Nucleic acid sequence encoding the amino acid sequence of sequence ID no 3.

9. (currently amended) Food product comprising a protein ~~showing anti-freeze properties according to any of claims 4-7~~ claim 6.

10. (currently amended) ~~Food~~ The food product according to claim 9 wherein the food product is selected from the group comprising frozen vegetables and frozen confectionery ~~such as ice cream~~.

11. (Canceled)

12. (Canceled)

13. (new) An isolated protein having anti-freeze activity which protein is isolated from a pure bacterial culture of Marinomonas species that generate anti-freeze proteins, said Marinomonas species comprising a 16S rRNA gene having at least 95% identity with the corresponding sequence from the organism Marinomonas protea deposited under Accession No. NCIMB 41006.

14. (new) An isolated protein having anti-freeze activity which protein is isolated from a pure bacterial culture of Pseudomonas species deposited under Accession No. NCIMB 41076.

15. (new) The isolated protein of claim 13 wherein the Marinomas species is the organism *Marinomonas protea* deposited under Accession No. NCIMB 41006.
16. (new) A food product comprising a protein according to claim 13.
17. (new) The food product according to claim 10 wherein the food product is ice cream.